AMENDMENTS TO THE CLAIMS

1. (Original): An image generating method, including:

regarding original moving pictures as two-dimensional images that vary along time axis, and when the moving pictures are expressed, in a virtual manner, as a box space formed by the two-dimensional images and the time axis, cutting the box space by a surface that contains a plurality of points each of which differs from the other in time value;

projecting an image that appears on the cut surface onto a plane in the direction of time axis; and

outputting the images appearing on the plane as new moving pictures, by varying the cut surface in time.

2. (Original): An image generating method according to Claim 1, wherein varying the cut surface in time is realized by moving the surface along the time axis.

3. (Original): An image generating method according to Claim 1, wherein the surface is defined by a function of coordinates of points contained in the two-dimensional images.

4. (Original): An image generating apparatus, including:

an image memory which sequentially stores original moving pictures along time axis;

an image conversion unit which regards the original moving pictures stored in said image memory as two-dimensional images that vary along time axis and, when the moving pictures are expressed, in a virtual manner, as a box space formed by the two-

dimensional images and the time axis, cuts the box space by a surface that contains a plurality of points each of which differs from the other in time value, and which projects an image that appears on the cut surface onto a plane in the direction of time axis; and

an image data output unit which sets to a new moving-picture frame the images appearing on the plane obtained by varying the cut surface in time in said image conversion unit.

5. (Original): An image generating apparatus according to Claim 4, wherein said image conversion unit realizes varying the cut surface in time by moving the surface along the time axis.

6. (Original): An image generating apparatus according to Claim 4, wherein the surface is defined in a manner such that the surface has continuous or discrete width in the direction of the time axis, and said image conversion unit synthesizes images covered within the width.

7. (Original): An image generating apparatus according to Claim 4, wherein said image conversion unit cuts the box space by a surface defined by a function of coordinates of an image region constituting the two-dimensional image.

8. (Original): An image generating apparatus according to Claim 7, wherein the surface is defined by a function which does not depend on a horizontal coordinate of the two-dimensional image.

9. (Original): An image generating apparatus according to Claim

4, wherein said image conversion unit cuts the box space by a surface which is defined by a function of attribute values for an image region constituting the two-dimensional image.

10. (Original): An image generating apparatus according to Claim 4, further including a setting input unit which acquires, via a user operation, input of a setting value used to define the surface, wherein said image conversion unit cuts the box space by the surface defined by a function of the setting value acquired by said setting input unit.

11. (Original): An image generating apparatus according to Claim 10, wherein the function of the setting value acquired by said setting value input unit is expressed by a curve that indicates a relation between coordinates of points contained in the two-dimensional images and time values thereof when a relation between the function of the setting value and a variable of the function is displayed on a screen.

12. (Original): An image generating apparatus according to Claim 10, wherein said setting input unit acquires, as the setting value, coordinates of characteristic points in the two-dimensional images, and wherein said image conversion unit cuts the box space by a curve defined by a function of the coordinates of the characteristics points.

13. (Original): An image generating apparatus according to Claim 4, wherein said image conversion unit partially changes a rate of the new moving-picture frame to be outputted from said image data

output unit in a manner such that, according to attribute values of image regions that constitute the two-dimensional images, the cut surface is varied in time with different speed for each of the image regions.

14. (Original): An image generating apparatus according to Claim 4, wherein the time value that defines the surface includes at least one of a past or a future with the present time being a center thereof.

15. (Canceled).

16. (Canceled).

17. (Previously presented): An image generating method, including:

reading out, for each in-picture position of an image contained in a target frame in original moving pictures, data that correspond to the in-picture position, from at least one of a plurality of frames contained in the original moving pictures;

synthesizing the read-out data in a ratio according to an attribute value of the image contained in at least one of the plurality of frames; and

forming new moving pictures by sequentially outputting frames formed in said synthesizing.

18. (Canceled).

19. (Canceled).

20. (Canceled).

21. (Canceled).

22. (Previously presented): An image generating apparatus which includes an image memory, an image conversion unit and an image data output unit,

wherein said image memory records, in sequence, original moving pictures for each frame,

wherein said image conversion unit determines, for each in-picture position of an image contained in a target frame, a plurality of frames at predetermined time intervals from the frames recorded in said image memory,

wherein said image conversion unit reads out, from the plurality of frames, data that correspond to the in-picture position and synthesizes the data in a ratio according to an attribute value thereof, for each in-picture position, and

wherein said image data output unit sequentially outputs the frame synthesized and reconstructed by said image conversion unit.

23. (Canceled).

24. (Currently amended): An image generating apparatus <u>which includes an image memory, an image conversion unit and an image data output unit,</u>

<u>wherein said image memory records, in sequence, original moving pictures for each frame,</u>

wherein said image conversion unit reads out, for each in-picture position of an image contained in a target frame, data that correspond to the in-picture position from a frame temporally displaced from the target frame by an amount determined by an attribute value of the in-picture position, and then synthesizes the data, and

wherein said image data output unit sequentially outputs the frame reconstructed by synthesis~~according to Claim 22, wherein said image conversion unit sets time intervals of the determining frames to separate time intervals in accordance with an attribute value thereof, for each in-picture position~~.

25. (Currently amended): An image generating apparatus according to Claim 24, ~~which includes an image memory, an image conversion unit and an image data output unit,~~

~~wherein said image memory records, in sequence, original moving pictures for each frame, and said image conversion unit reads out, for each in-picture position of an image contained in a target frame, data that correspond to the in-picture position from at least one of frames recorded in said image memory and synthesizes the data,~~

~~wherein said image data output unit sequentially outputs the frame synthesized and reconstructed by said image conversion unit, and~~

wherein the target frame or the at least one of frames is at least one of a previous frame in time or a subsequent frame in time with respect to a reference frame which should have been naturally outputted by said image data output unit from said image memory.

26. (Currently amended): An image generating apparatus according to Claim 24, ~~which includes an image memory, an image conversion unit and an image data output unit,~~

~~wherein said image memory records, in sequence, original moving pictures for each frame, and said image conversion unit reads out, for each in picture position of an image contained in a target frame, data that correspond to the in picture position from at least one of frames recorded in said image memory and synthesizes the data,~~

~~wherein said image data output unit sequentially outputs the frame synthesized and reconstructed by said image conversion unit, and~~

wherein, for each in-picture position of the images contained in the target frame, said image conversion unit adds a predetermined pixel value in accordance with an attribute value thereof.

27. (Original): An image generating apparatus according to Claim 9, wherein the attribute value is a depth value.

28. (Previously presented): An image generating apparatus according to Claim 22, wherein the attribute value is a depth value.

29. (Original): An image generating apparatus according to Claim 9, wherein the attribute value is a value that indicates the order of approximation relative to a desired image pattern.

30. (Previously presented): An image generating apparatus according to Claim 22, wherein the attribute value is a value that indicates the order of approximation relative to a desired image pattern.

31. (Original): An image generating apparatus according to Claim 9, wherein the attribute value is a value that indicates a degree of change of an image area in time.

32. (Previously presented): An image generating apparatus according to Claim 22, wherein the attribute value is a value that indicates a degree of change of an image area in time.

33. (Original): An image generating apparatus according to Claim 9, wherein the attribute value is a pixel value.

34. (Previously presented): An image generating apparatus according to Claim 22, wherein the attribute value is a pixel value.

35. (Original): An image generating apparatus according to Claim 4, further including an image input unit which acquires, as the original moving pictures, images shot by a camera and sends the images to said image memory.

36. (Previously presented): An image generating apparatus according to Claim 22, further including an image input unit which acquires, as the original moving pictures, images shot by a camera and sends the images to said image memory.

37. (Previously presented): An image generating apparatus according to Claim 22, further including a setting input unit which acquires, via a user operation, input of a setting value used to determine the at least one of frames, wherein said image conversion unit determines the at least one of frames according to the setting value acquired by said setting input unit.

38. (Currently amended): An image generating apparatus according to Claim 37[[28]], wherein the setting value acquired by said setting input unit is expressed by a curve that indicates a relation between coordinates of points contained in the two-dimensional images and time values thereof when displayed on a screen.

39. (Currently amended): An image generating apparatus according to Claim 37[[28]], wherein said setting input unit acquires, as the setting value, coordinates of characteristic points in the two-dimensional images and wherein said image conversion unit determines the at least one of frames according to the coordinates of the characteristic points.

40. (Previously presented): A program product embodied on a computer readable medium and executed on a computer, the program including the functions of:

regarding original moving pictures as two-dimensional images that vary along time axis, and when the moving pictures are expressed, in a virtual manner, as a box space formed by the two-dimensional images and the time axis, cutting the box space

by a surface that contains a plurality of points each of which differs from the other in time value;

projecting an image that appears on the cut surface onto a plane in the direction of time axis; and

outputting the images appearing on the plane as new moving pictures, by varying the cut surface in time.

41. (Previously presented): A program product embodied on a computer readable medium and executed on a computer, comprising:

recording, in sequence, original moving pictures for each frame;

determining, for each in-picture position of an image contained in a target frame, a plurality of frames at predetermined time intervals from the frames recorded in said image memory, and reading out, from the plurality of frames, data that correspond to the in-picture position;

synthesizing the read-out data with the frame to be outputted in a ratio according to an attribute value thereof, for each in-picture position; and

forming new moving pictures by sequentially outputting the synthesized frames.

42. (Previously presented): A recording medium which stores a program executable by a computer, the program including the functions of:

reading out, for each in-picture position of an image contained in a target frame in original moving pictures, data that correspond to the in-picture position, from at least one of a plurality of frames contained in the original moving pictures;

synthesizing the read-out data in a ratio according to an

attribute value of the image contained in at least one of the plurality of frames; and

forming new moving pictures by sequentially outputting frames formed in said synthesizing.